WEEKLY EPIDEMIOLOGY BULLETIN

NATIONAL EPIDEMIOLOGY UNIT, MINISTRY OF HEALTH & WELLNESS, JAMAICA

Cholera

Overview

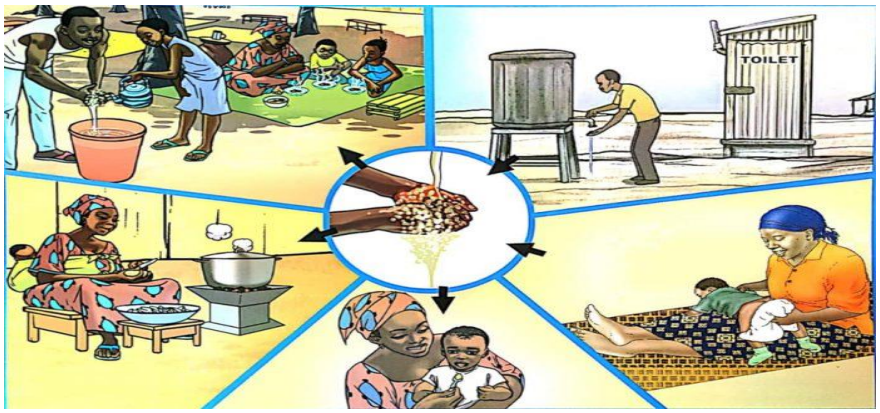
Cholera is an acute diarrhoeal infection caused by eating or drinking food or water that is contaminated with the bacterium Vibrio cholerae. Cholera remains a global threat to public health and is an indicator of inequity and lack of social development. Researchers have estimated that every year, there are 1.3 to 4.0 million cases of cholera, and 21 000 to 143 000 deaths worldwide due to the infection. Cholera is an extremely serious disease that can cause severe acute watery diarrhoea with severe dehydration. It takes between 12 hours and 5 days for a person to show symptoms after consuming contaminated food or water. Cholera affects both children and adults and can kill within hours if untreated. Most people infected with Vibrio cholerae do not develop any symptoms, although the bacteria are present in their faeces for 1-10 days after infection. This means the bacteria are shed back into the environment, potentially infecting other people. Cholera is often predictable and preventable. It can ultimately be eliminated where access to clean water and sanitation facilities, as well as good hygiene practices, are ensured and sustained for the whole population.

Symptoms

Cholera is an extremely virulent disease that can cause severe acute watery diarrhoea. It takes between 12 hours and 5 days for a person to show symptoms after ingesting contaminated food or water (2). Cholera affects both children and adults and can kill within hours if untreated. Most people infected with V. cholerae do not develop any symptoms, although the bacteria are present in their faeces for 1-10 days after infection and are shed back into the environment, potentially infecting other people. Among people who develop symptoms, the majority have mild or moderate symptoms, while a minority develop acute watery diarrhoea with severe dehydration. This can lead to death if left untreated.

Prevention and Control

Measures for the prevention of cholera mostly consist of providing clean water and proper sanitation to populations who do not yet have access to basic services, as well as vaccination with Oral Cholera Vaccines. Health education and good food hygiene are also essential. Communities should be reminded of basic hygienic behaviours. These include the need to always wash hands with soap after defecation and before handling food or eating, as well as safe preparation and conservation of food. Strengthening surveillance and early warning systems are important measures to allow detection of the first cases in an outbreak and to put in place control measures as quickly as possible. Preventing and controlling cholera requires interventions beyond the health sector and it is vital to engage with partners across other sectors. The development and implementation of multi-sectoral cholera control plans is a useful mechanism to bring together all relevant sectors, and forge lines of communication and coordination that are valuable beyond cholera control.



https://www.who.int/health-topics/cholera#tab=tab_1

EPI WEEK 29

Released July 31, 2020 ISSN 0799-3927

SENTINEL SYNDROMIC SURVEILLANCE

Sentinel Surveillance in Jamaica

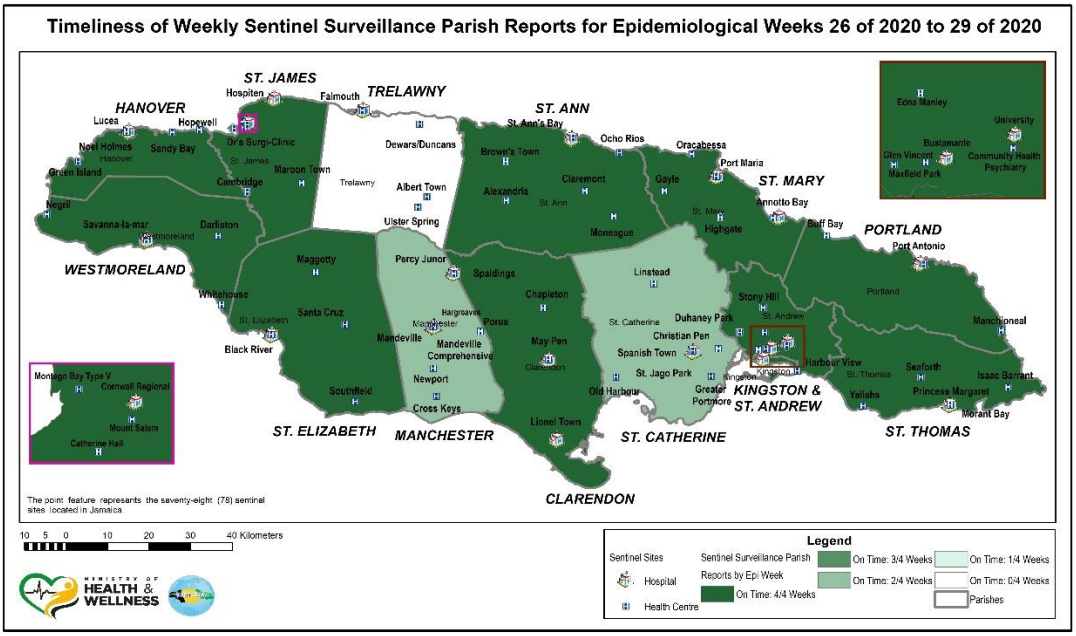
A syndromic surveillance system is good for early detection of and response to public health events.

Sentinel surveillance occurs when selected health facilities (sentinel sites) form a network that reports on certain health conditions on a regular basis, for example, weekly. Reporting is mandatory whether or not there are cases to report.

Jamaica's sentinel surveillance system concentrates on visits to sentinel sites for health events and syndromes of national importance which are reported weekly (see pages 2 -4). There are seventy-eight (78) reporting sentinel sites (hospitals and health centres) across Jamaica.

Map representing the Timeliness of Weekly Sentinel Surveillance Parish Reports for the Four Most Recent Epidemiological Weeks – 26 to 29 of 2020

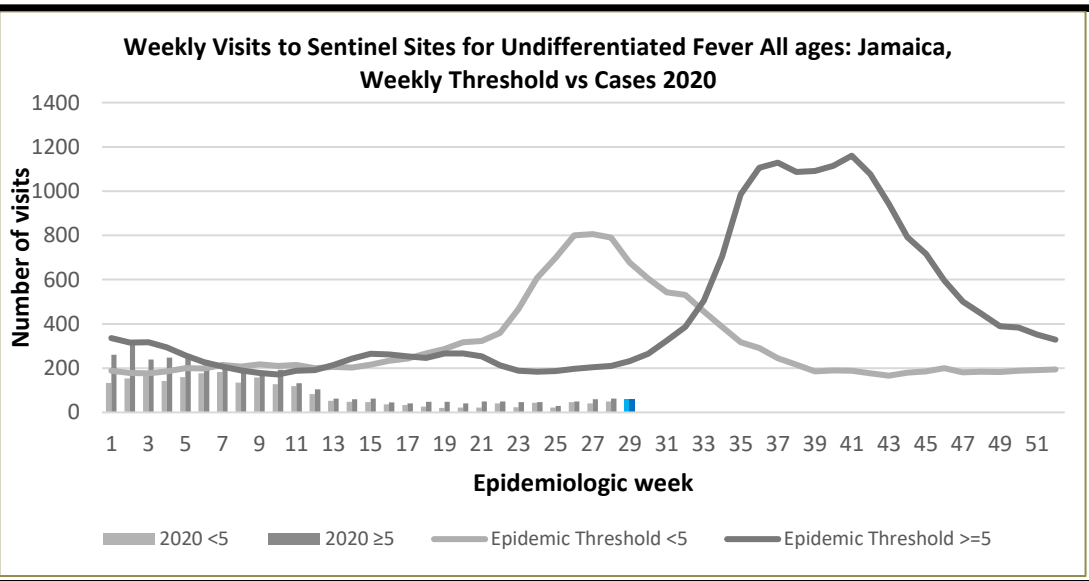
Parish health departments submit reports weekly by 3 p.m. on Tuesdays. Reports submitted after 3 p.m. are considered late.



REPORTS FOR SYNDROMIC SURVEILLANCE

FEVER
Temperature of >38^0C /100.4^0F (or recent history of fever) with or without an obvious diagnosis or focus of infection.

KEY
VARIATIONS OF BLUE SHOW CURRENT WEEK



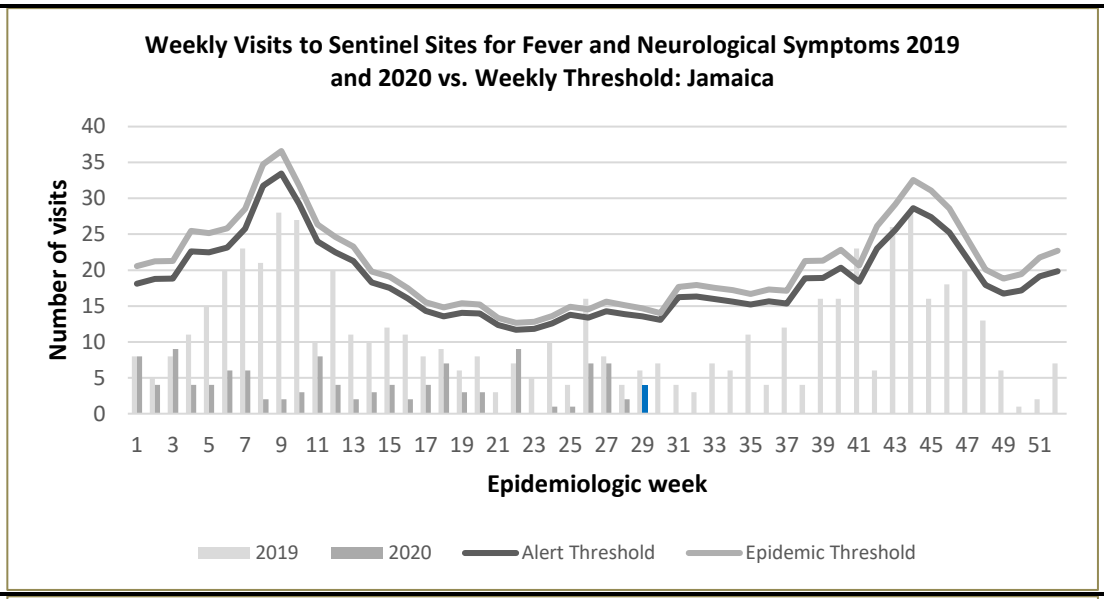
2 NOTIFICATIONS- All clinical sites

INVESTIGATION REPORTS- Detailed Follow up for all Class One Events

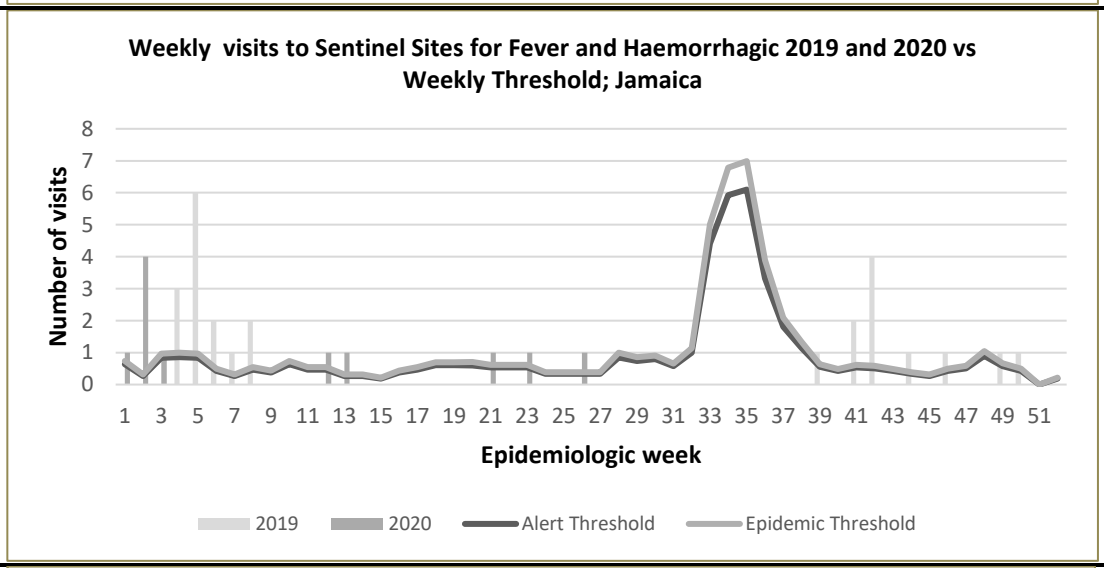
HOSPITAL ACTIVE SURVEILLANCE- 30 sites. Actively pursued

SENTINEL REPORT- 78 sites. Automatic reporting

FEVER AND NEUROLOGICAL
Temperature of >38^{0}C /100.4^{0}F (or recent history of fever) in a previously healthy person with or without headache and vomiting. The person must also have meningeal irritation, convulsions, altered consciousness, altered sensory manifestations or paralysis (except AFP).

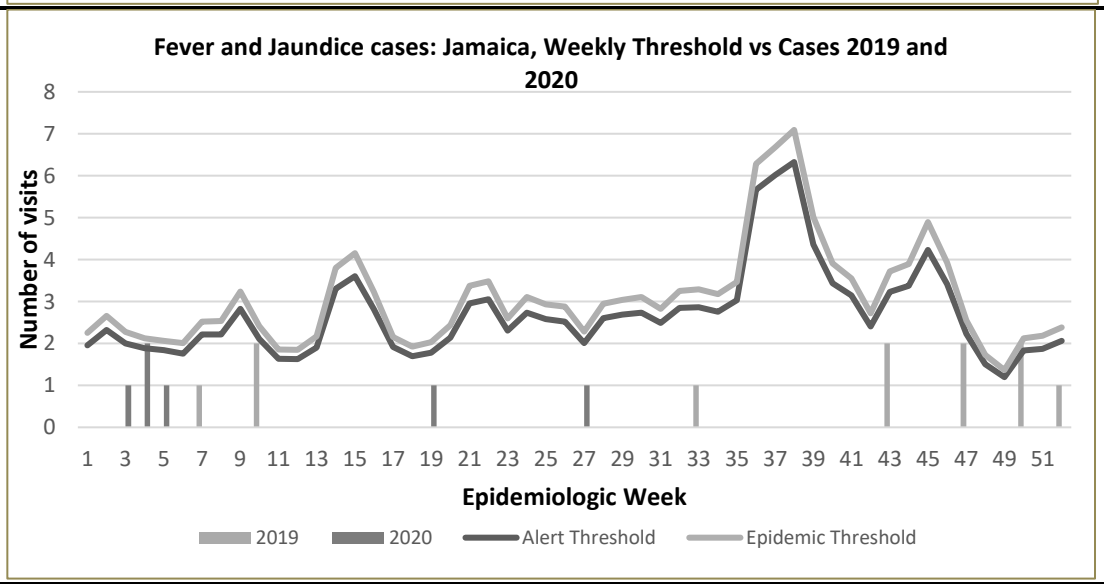


FEVER AND HAEMORRHAGIC
Temperature of >38^{0}C /100.4^{0}F (or recent history of fever) in a previously healthy person presenting with at least one haemorrhagic (bleeding) manifestation with or without jaundice.



FEVER AND JAUNDICE
Temperature of >38^{0}C /100.4^{0}F (or recent history of fever) in a previously healthy person presenting with jaundice.

The epidemic threshold is used to confirm the emergence of an epidemic in order to implement control measures. It is calculated using the mean reported cases per week plus 2 standard deviations.



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ACCIDENTS

Any injury for which the cause is unintentional, e.g. motor vehicle, falls, burns, etc.

KEY

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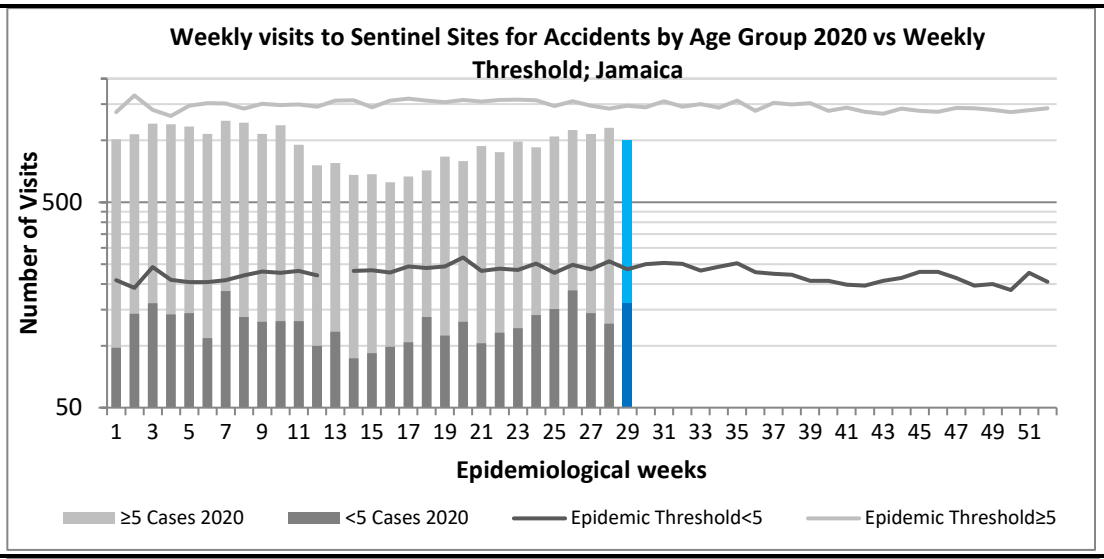
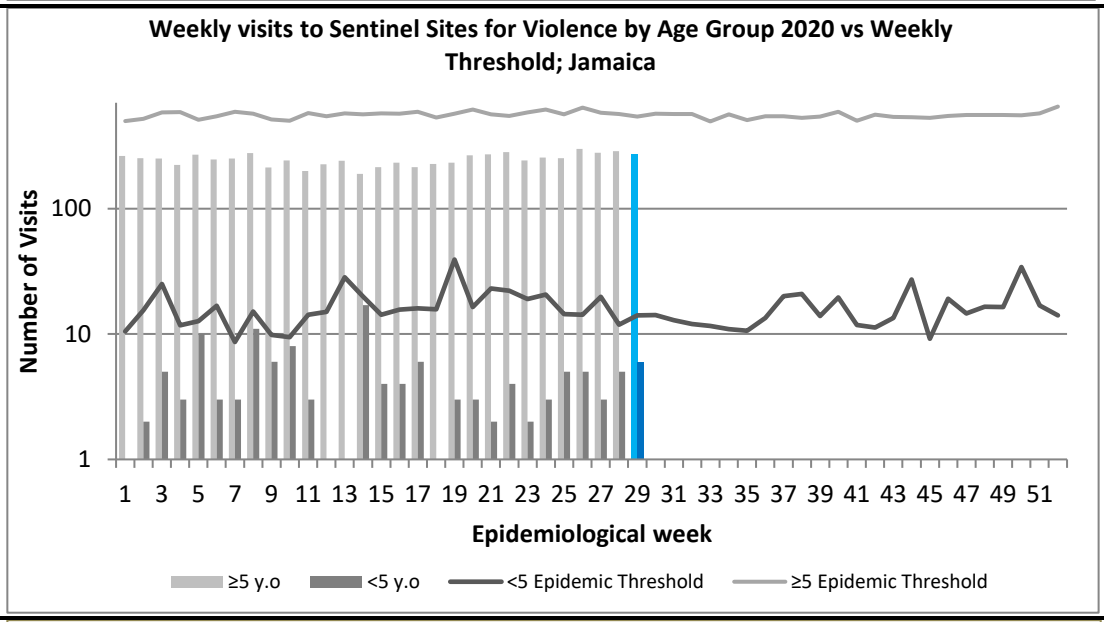


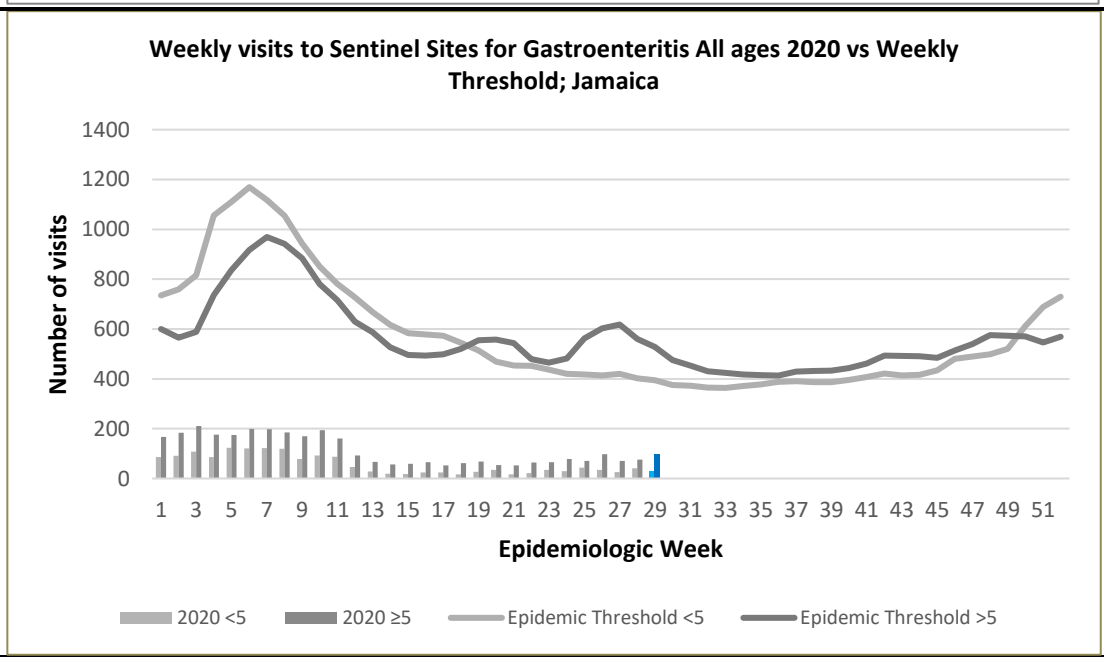
VIOLENCE

Any injury for which the cause is intentional, e.g. gunshot wounds, stab wounds, etc.



GASTROENTERITIS

Inflammation of the stomach and intestines, typically resulting from bacterial toxins or viral infection and causing vomiting and diarrhoea.



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- CLASS ONE NOTIFIABLE EVENTS

	CLASS 1 EVENTS		Confirmed YTD CURRENT YEAR 2020	Confirmed YTD PREVIOUS YEAR 2019
NATIONAL /INTERNATIONAL INTEREST	Accidental Poisoning		5	23
	Cholera		0	0
	Dengue Hemorrhagic Fever*		NA	NA
	Hansen's Disease (Leprosy)		0	0
	Hepatitis B		0	11
	Hepatitis C		0	2
	HIV/AIDS		NA	NA
	Malaria (Imported)		0	0
	Meningitis (Clinically confirmed)		1	11
EXOTIC/ UNUSUAL	Plague		0	0
H IGH MORBIDIT/ MORTALIY	Meningococcal Meningitis		0	0
	Neonatal Tetanus		0	0
	Typhoid Fever		0	0
	Meningitis H/Flu		0	0
SPECIAL PROGRAMMES	AFP/Polio		0	0
	Congenital Rubella Syndrome		0	0
	Congenital Syphilis		0	0
	Fever and Rash	Measles	0	0
		Rubella	0	0
	Maternal Deaths**		22	35
	Ophthalmia Neonatorum		23	105
	Pertussis-like syndrome		0	0
	Rheumatic Fever		0	0
	Tetanus		0	0
	Tuberculosis		6	27
	Yellow Fever		0	0
	Chikungunya***		0	0
	Zika Virus****		0	0

Comments

AFP Field Guides from WHO indicate that for an effective surveillance system, detection rates for AFP should be 1/100,000 population under 15 years old (6 to 7) cases annually.

Pertussis-like syndrome and Tetanus are clinically confirmed classifications.

* Dengue Hemorrhagic Fever data include Dengue related deaths;

** Figures include all deaths associated with pregnancy reported for the period. * 2019 YTD figure was updated.

*** CHIKV IgM positive cases

**** Zika PCR positive cases

NA- Not Available

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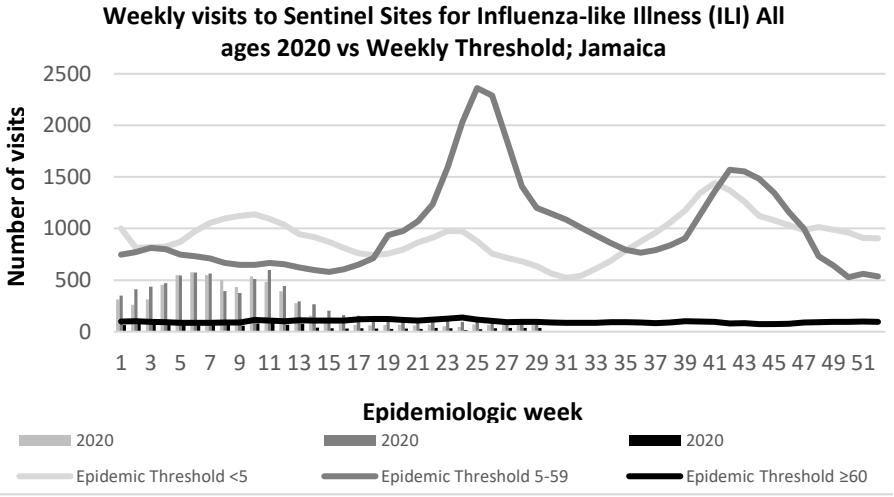
NATIONAL SURVEILLANCE UNIT INFLUENZA REPORT

EW 29

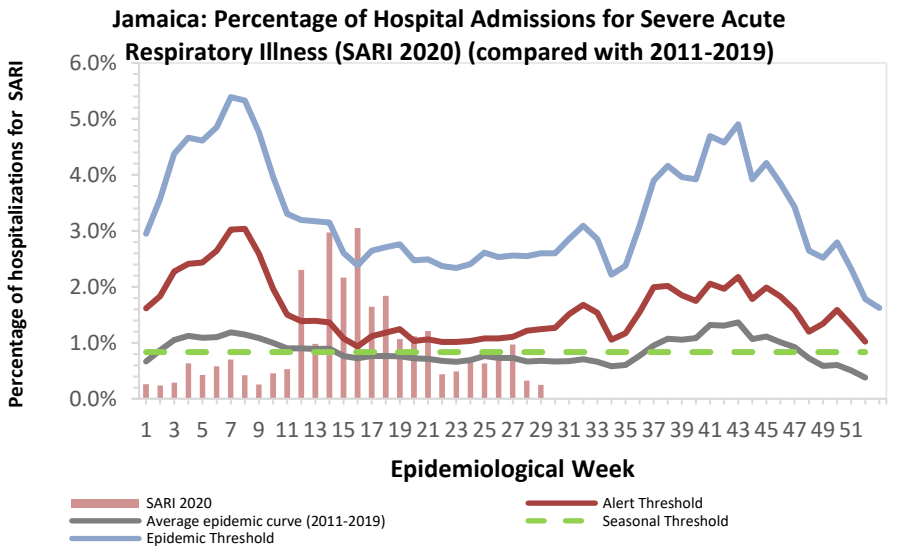
July 12, 2020-July 18, 2020 Epidemiological Week 29

	EW 29	*YTD*
SARI cases	*4*	*344*
Total Influenza positive Samples	*0*	*69*
Influenza A	*0*	*45*
H3N2	*0*	*4*
H1N1pdm09	*0*	*38*
Not subtyped	*0*	*3*
Influenza B	*0*	*24*
Parainfluenza	*0*	*0*



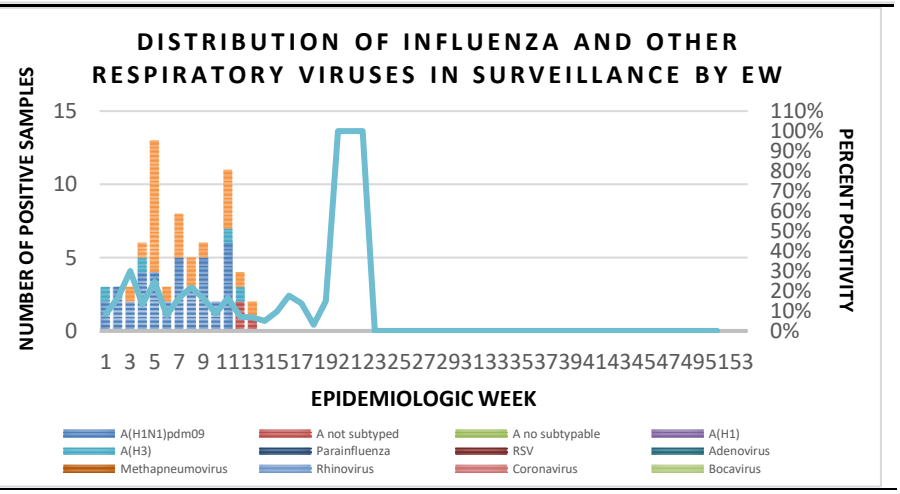
Epi Week Summary

During EW 29, 4 (four) SARI admissions were reported.



Caribbean Update EW 29

Caribbean: Influenza and other respiratory virus activity remained low in the subregion. In Haiti and Suriname, detections of SARS-CoV-2 continue elevated and increasing..



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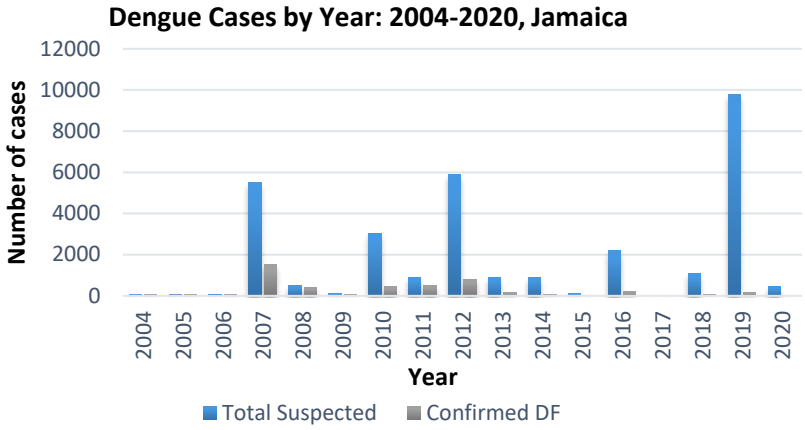
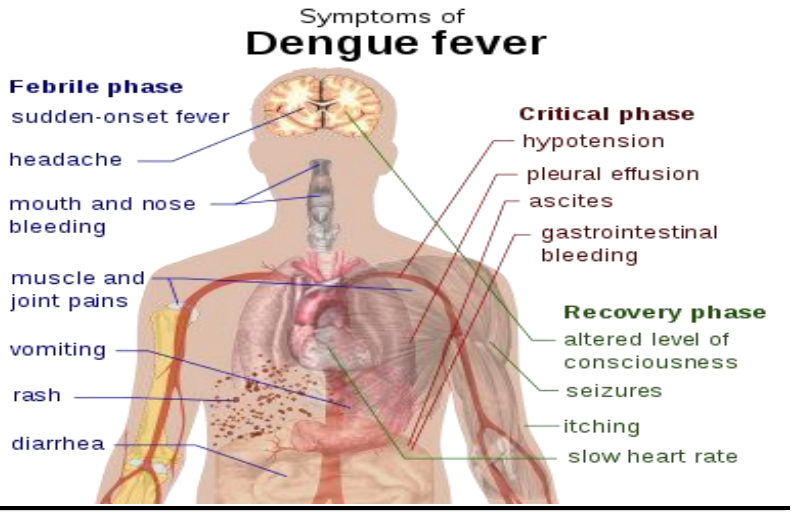
Dengue Bulletin

July 12, 2020-July 18, 2020 Epidemiological Week 29 | Epidemiological Week 29



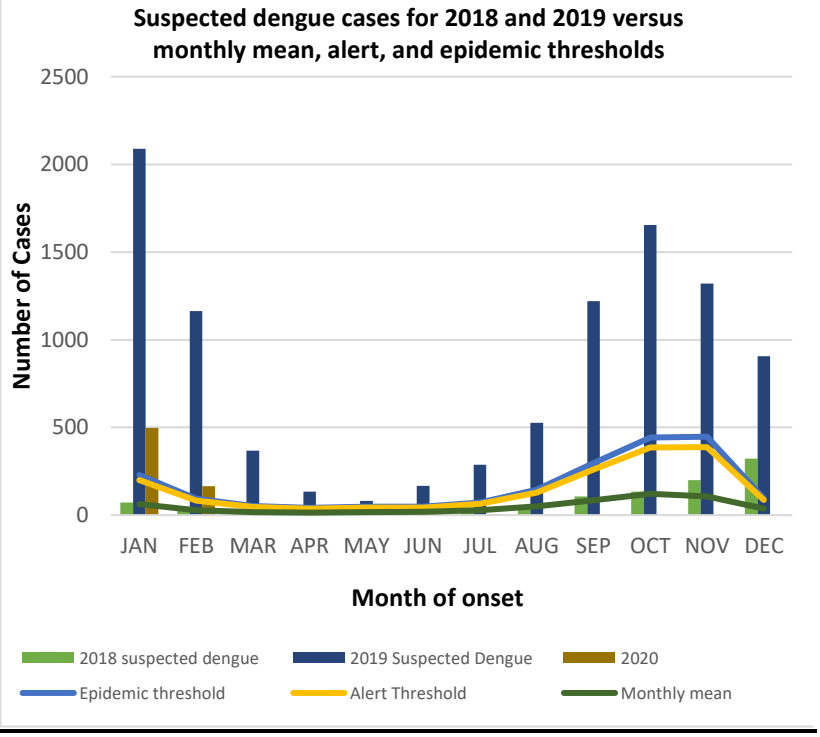
Reported suspected and confirmed dengue with symptom onset in week 29 of 2020

	2020	
	EW 29	YTD
Total Suspected Dengue Cases	0**	725**
Lab Confirmed Dengue cases	0**	1**
CONFIRMED Dengue Related Deaths	0**	1**



Points to note:

- ** figure as at July 24 , 2020
- Only PCR positive dengue cases are reported as confirmed.
- IgM positive cases are classified as presumed dengue.



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RESEARCH PAPER

Diabetes mHealth: Perceptions of physicians and the experience of T2DM patients in regards to a mobile application for Jamaicans

Alicia Brown, Sheldon Connor, Sheckardo Daley, Daniella McCalla, Fabian Rose, and Susan A. Muir

Objectives: This study had two aims: to identify mHealth features deemed suitable by physicians and to measure the experience of type 2 diabetes mellitus (T2DM) patients using a diabetes mobile application in Jamaica.

Methods: The study was a cross sectional study of physicians who treat T2DM patients as well as T2DM patients aged 18-80. Subjects were recruited within St. Andrew, Kingston and St. Catherine, Jamaica, using convenient sampling. A diabetes mobile application was developed for the Android platform, which tracked blood sugar, blood pressure, weight and diet. Data was collected using interviews of physicians as well as surveys and observations of patients using the application.

Results: The majority of physicians expected that a mHealth application would help with monitoring of the disease. The features that were deemed to be most important were monitoring, tailored education (that provide encouraging simple messages to patients), as well as sharing of information between patients and physicians. Thirty-two percent (32%) of the patients rated the application as excellent while sixty-eight percent (68%) rated it as good or fairly good. The two most valuable features were blood sugar (82%) and blood pressure (41%). Surprisingly, patients over sixty adapted well to the application. Nineteen patients (86%) indicated that they were extremely likely or likely to recommend the application while three (14%) were neutral.

Conclusion: Jamaican physicians believed that the most important specifications were monitoring, tailored feedback to patients, and patient-provider communication. Most of the Jamaican T2DM patients were satisfied with and would recommend using a mobile application.

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